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Commodity and Ingredient Hedging, LLC

Using a Dairy's Total Margin to Assess and Manage Profitability:

Introduction:

The concept of a margin is not new. Simply put, revenues minus expenses equal the operating margin of a business. Many dairies do not look at their enterprise in margin terms. Commodity & Ingredient Hedging asserts that following a margin approach can significantly improve your profitability and help your business through the inevitable lean times that are part of any cyclical industry.

So how do you calculate your operation's profit margin? From the revenue side of the equation, value of milk sales is the principal determinant for most dairies. The expense side of the ledger is predominantly feed costs. Fortunately, the futures market allows a producer to discover forward values for both feed costs as well as milk sales, and this provides the basis around which a producer can identify a dairy's profit margin.

Margin Identification:

While somewhat simplistic, the value of milk minus the cost of feed and other expenses equals the operating margin. The futures exchange allows us to discover the best market-based estimate of what forward values will be for both milk based on the Class III contract, and the CBOT corn and CBOT soybean meal that trades at the CME Group Exchange. While you are not necessarily feeding corn or soybean meal as part of a forage-based diet, your feed ingredients can still be defined in energy and protein equivalents, and there is a relationship or correlation with their movement relative to futures prices. Futures contracts are traded up to a year in advance or even beyond which allow us to identify a forward profit margin well ahead of when it will actually be physically produced.

Why is this important? Because the projected forward profit margin that you can identify in the market may change over time and your final physically-realized return might be different than what you identify today. This can be either good or bad for you, as a margin that improves over time will benefit your operation while a margin that deteriorates will hurt you. Therefore, identifying the profit margin is valuable for two reasons:



First, changes in the margin as well as the components that make up the margin have seasonal tendencies that can be anticipated from one period to the next. This provides you clues as to whether the margin will improve or worsen over time. This is a key concept to grasp because it is often the case that *the best profit margin opportunities for your dairy may occur well ahead of the periods they will actually be realized in.* The second value of identifying the current or forward profit margin is that the market allows you to manage this margin to the benefit of your operation.

Profit Margin Seasonality:

Understanding these seasonal tendencies around the components of a dairy operation's profit margin and using them to anticipate how that profit margin may change over time from one period to the next is a powerful tool in assisting with the management of that profit margin. It is impossible to know exactly how strong or weak the profit margin will be in any given future period. However, it is possible to know what the projected forward margin is ahead of time as well as identify how relatively strong or weak the margin is within a historical context for that period. In addition, it is also possible to observe where the profit margin is from a seasonal standpoint. This allows you to anticipate whether you can reasonably expect it to improve or deteriorate from current levels as you move forward in time.

This is important because it may be that a forward margin is currently strong by historical standards, yet coincides with a seasonal time when margins tend to decline. Identifying these situations allows you to manage or protect the margin from an adverse change that would reduce your operation's profitability over time.

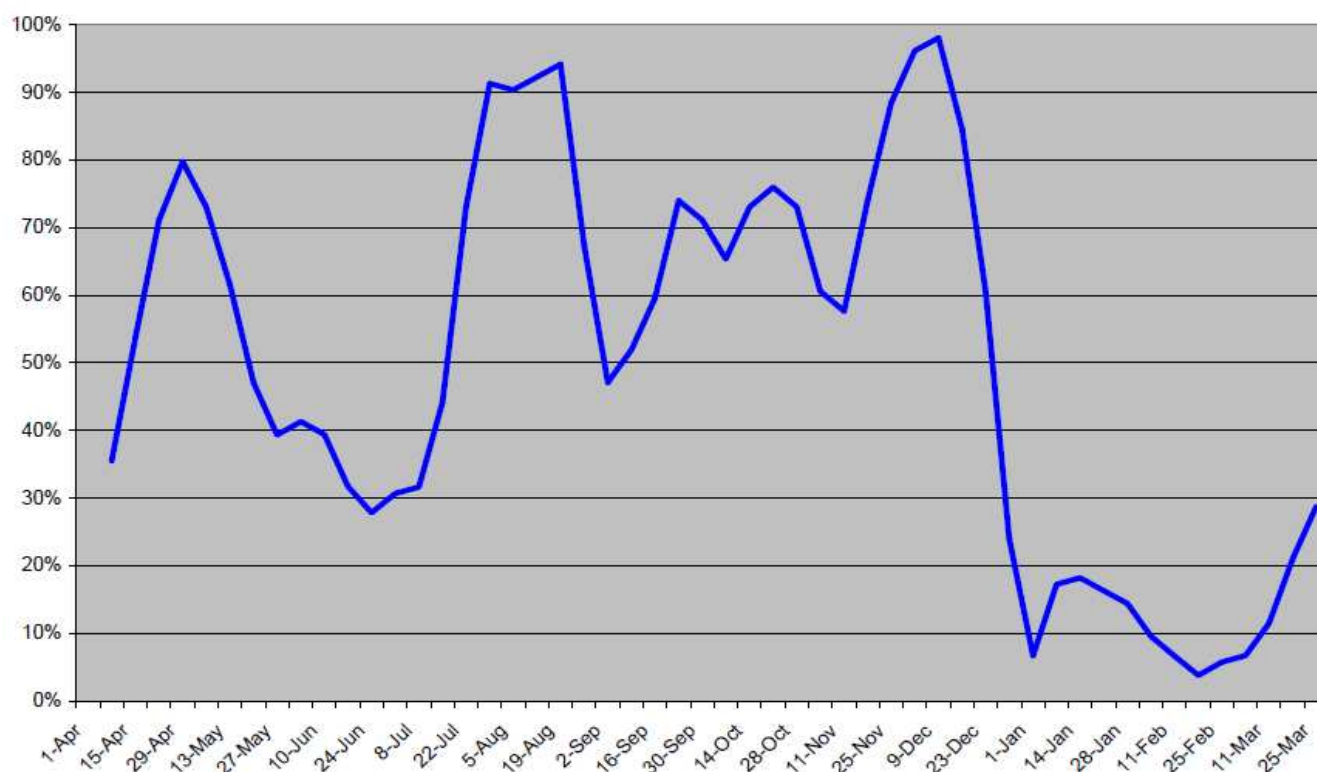
As an example to introduce this concept of seasonality, let us consider the time period of calendar year first quarter. This is often a time frame associated with poor dairy margins as milk prices are under pressure heading into the seasonal lactation period or "spring flush" while at the same time, feed prices tend to be firm due to the uncertainty surrounding the upcoming growing season. As a result of relatively low milk prices and relatively high feed costs, first quarter is often a poor margin period for dairy operations.

Assuming this is true, if one is open to the market, there would be a risk of realizing a below-average profit margin during this time period. By "open to the market" we mean that there has been no prior contracting to lock in feed costs, and/or milk sales before entering the first quarter period. Therefore, if you are selling your milk on the spot market with milk prices depressed while at the same time you are purchasing feed ingredients with those costs high, the operating margin you would realize is likely to be low or even negative. Let's examine a series of graphs to help illustrate this point.

The following chart shows the Q1 seasonal margin for a dairy operation:



1st Quarter Margin Seasonality, 2000-2009



The horizontal axis displays the different months of the calendar year. We recommend that you look at Q1 margin in the beginning of Q2 a year ahead of time, which is why the chart begins in April (as opposed to January). The vertical axis displays an index ranging from 0 to 100 so that if you are reading the intersection between the two, it is telling you the times of the year when Q1 margin tends to be seasonally strong (between 90%-100%) versus times when it tends to be seasonally weak (between 10%-0%). The blue line displays the seasonal tendency for all years between 2000-2009. You will notice that Q1 margin tends to seasonally peak in both August and December, and is at its low from early January through late March (when you would actually be realizing that margin in the open market).

Just as we can examine the seasonality of the entire profit margin, we can also drill in to look at the seasonal tendencies of the component parts of the margin. The following graphs display the seasonal price patterns of March Corn futures, March Soybean Meal futures, as well as the March Class III Milk Futures that trade at the CME Group:



March Corn(CBOT) Historical Patterns(1960-2010)

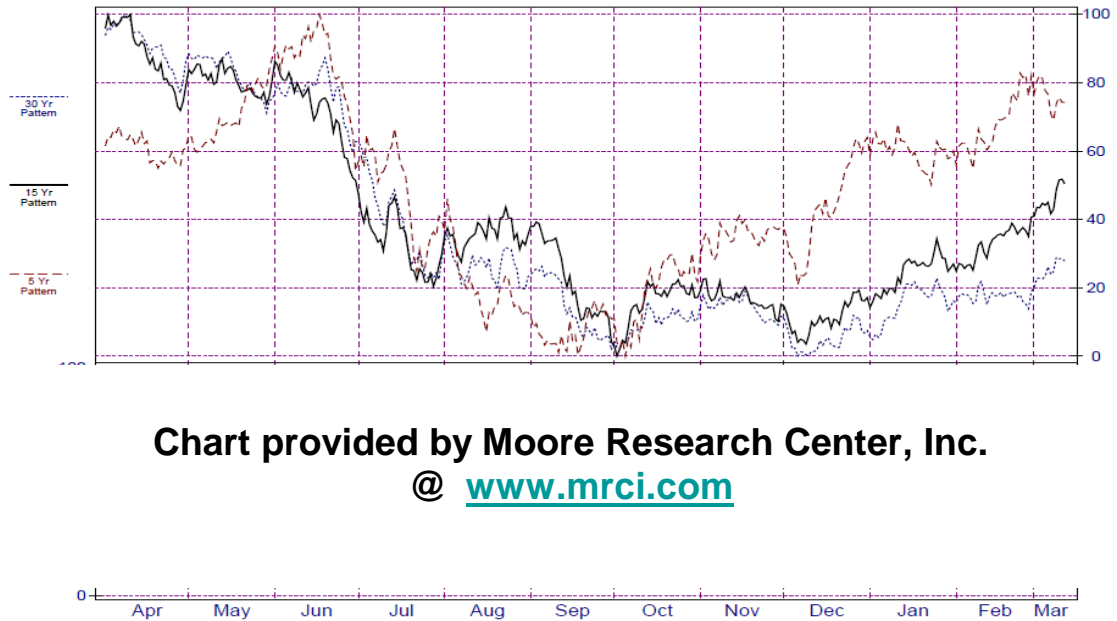


Chart provided by Moore Research Center, Inc.
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March Soybean Meal(CBOT) Historical Patterns(1960-2010)

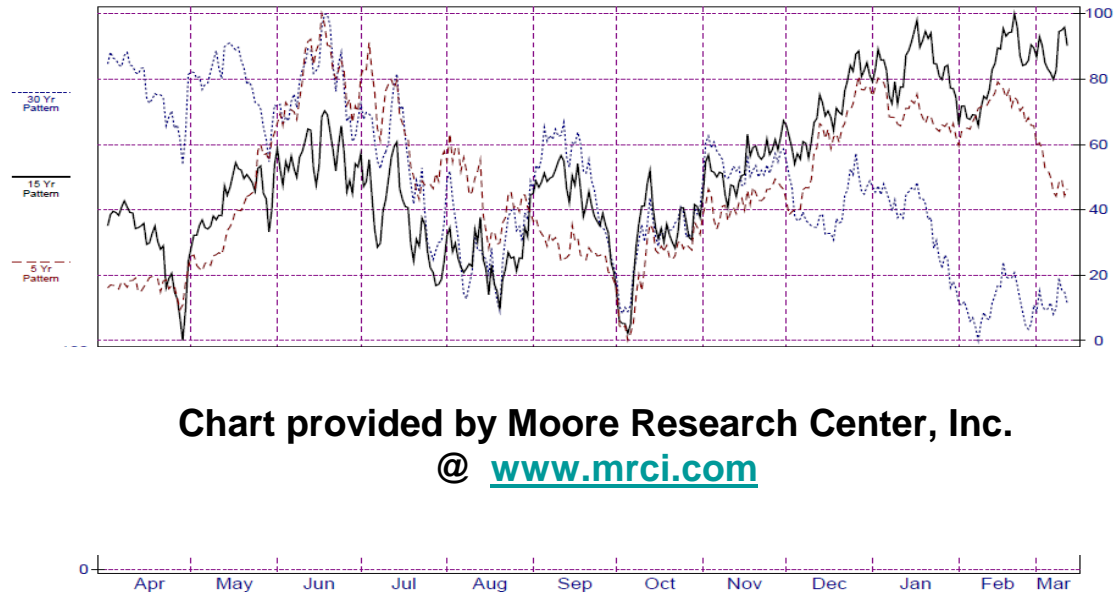
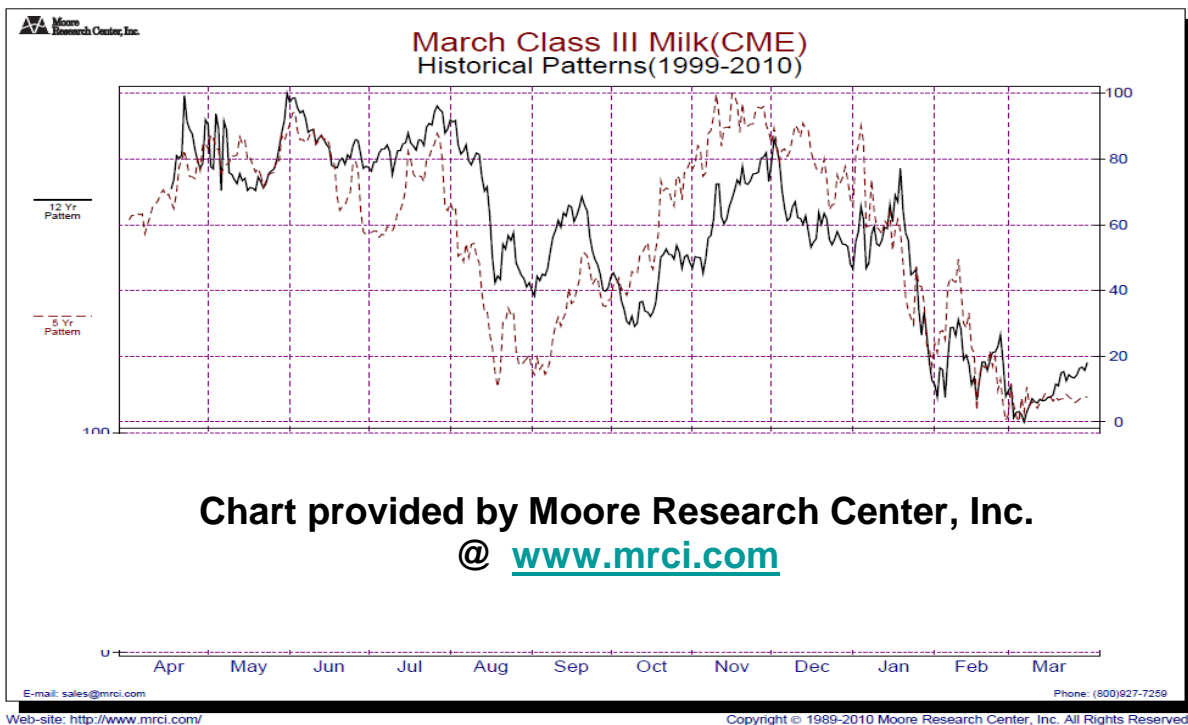


Chart provided by Moore Research Center, Inc.
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The graphs above introduce the whole topic of margin management. Identifying the projected margin out in a deferred period in time based upon corn, soybean meal and milk futures prices is just the first step in the process. The next step is to determine seasonally beneficial times to be expecting an overall favorable margin – often at times other than the period of physical contracting.

Once seasonally favorable times have been identified, it then becomes valuable to look at the individual components that are driving the overall profit margin. This ensures that a comprehensive plan to address the overall margin is met with particular controls for each component.

Profit Margin Management:

If we can establish that there is a reasonably strong correlation between the cash prices received for our milk, as well as the feed ingredients our dairy operation is consuming to the milk, corn and soybean meal futures contracts that trade at the CME Group, then these contracts can be used as substitute purchases and sales for the physical commodities in our cash market. Holding other expenses constant and not factoring in basis considerations, if you sell Class III futures against your projected milk sales and simultaneously buy corn and soybean meal futures against your projected feed purchases, you have effectively locked in a profit margin for your operation.

While expenses other than feed or basis variations between your mailbox check and Class III Milk futures or your specific feed ration ingredients and corn and soybean meal futures will ultimately cause the actual profit margin to deviate from what you can identify using futures prices, you have nonetheless offset a major source of the variation in your dairy's forward profit margin.



Additionally, there are other alternatives that the futures market provides. Option contracts can be used instead of futures that will enable you to protect the profit margin that the futures market projects, with added flexibility to allow for improvements that may occur with the margin becoming more profitable to your benefit over time. For example, you can lock in a *minimum price* for your milk sales as well as a *maximum price* for your feed purchases that effectively will provide you with a *minimum margin* in a forward time period. This added flexibility that option contracts provide present the dairy operation with numerous contracting choices that can protect the unrealized profit margin.

Please read below for a short CIH company profile

Commodity & Ingredient Hedging, LLC and the Dairy Margin Management Service (DMMS):

CIH is a consulting and education firm based in Chicago. We advise agricultural-based businesses on their price management needs. We work in small teams on client projects to assist them identify and manage the price risks inherent in their business.

In the area of dairy production, CIH provides a margin management service, DMMS. This service helps dairy owners clearly identify their current and forward profit margin. It uses objective tools in a web-based environment to assist in managing the risk of variation in the dairy's margin over time. Clear, easy to understand graphs and studies provide quick identification of the margin as well as how to interpret it.

Dedicated CIH staff with a strong focus on education help clients understand one-on-one what their contracting choices are and how to manage their operation's profit margin. A solid understanding of the features and benefits of different contracting combinations increases the confidence in implementing these tools into an effective risk management program. Because the profit margin fluctuates considerably over time, adjusting margin protection strategies to benefit from these changing values allows a dairy operation to optimize their profitability.

CIH is firmly committed to a margin approach of price management. We are not trying to bottom pick corn and soybean meal prices nor forecast highs in milk futures; rather, we are protecting an overall profit margin as a single unit of risk. Moreover, we are not traders trying to get in and out of price hedges as the market fluctuates up and down. We follow a long-term, bigger picture approach to price management and make any adjustments to positions in a methodical and disciplined manner, taking into consideration a variety of factors that are carefully explained to and understood by our clients who ultimately are in charge of the process and direct us in their decision making.

Our website-based tools assist us in working with clients efficiently through the margin analysis process as well as to help with the administration of position management, but ultimately the dairy margin management service is a relationship between the client and a team of CIH consultants who are dedicated to providing a unique and effective solution to the challenge you face managing your operation's profitability in the open market.

There is a risk of loss in futures trading. The information contained in this publication is taken from sources believed to be reliable, but is not guaranteed by Commodity & Ingredient Hedging, LLC as to accuracy or completeness, and is intended for purposes of information and education only. Nothing therein should be considered as a trading recommendation by Commodity & Ingredient Hedging, LLC. The rules and regulations of the individual exchanges should be consulted as the authoritative source on all contract specifications and regulations. There is a risk of loss in all futures and options trading.



